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# Refine Search

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## Search History

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L9: Entry 77 of 93 File: USPT Sep 27, 1994

DOCUMENT-IDENTIFIER: US 5350906 A

TITLE: Currency transfer system and method using fixed limit cards

Brief Summary Text (2):

This invention relates to currency transfer systems and methods and more particularly to such systems and methods which allow one person, not having a preestablished account to establish within a common account by means of a card having a fixed currency limit thereon, a specified sum of money which can then be removed at a later date either by the same person or by specific other people.

Brief Summary Text (27):

It is a further feature of this invention that a user having an established ATM account with an established PIN number may transfer amounts (or have amounts set aside) so that a recipient, using a temporary PIN, can withdraw the amount so designated.

Detailed Description Text (23):

One alternate method of using the system would be for various banks or other entities to issue special "money" cards that they sell through retail outlets in stores around the country or around the world. In such a situation, the bank would serve as the "sponsor" and would maintain its own sponsor account. The system would work such that the sponsor bank would have printed on the magnetic stripe of the money cards an electronic designation of the bank and a designation of a particular account within that bank. Again, these cards (assuming a fixed value of say $50) would be sold at a premium, for example $55.00, to a potential depositor.

Detailed Description Text (24):

This system is envisioned such that a depositor in one city can place money in the sponsor account by inserting the money card in an ATM and have a recipient at another city withdraw that money. The system will also work for travelers who wish to deposit a large sum of money in an account locally where they live and then withdraw the money as they go, perhaps in the currency of a country foreign to that in which the deposit (transfer) is made. Today the ATM network is used in this manner by people who maintain regular accounts, but there are a vast number of people who do not choose, for one reason or another, to maintain an ongoing account and thus do not have access to the ATM system. Also, today, ATM systems take several days to become active and require a great deal of bookkeeping by the banks. The system described herein gives immediate access with no paper work.

Detailed Description Text (39):

Digressing momentarily, the PIN number could be determined at the point of sale of the card such that the clerk who inputs the amount of money into the card can then give an oral PIN number to the user. Alternatively, the clerk could pass the card through an electronic printer and encode the temporary PIN number onto the card. This electronic printer could be connected to the central computer network if desired.

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L5: Entry 70 of 92 File: USPT Sep 17, 2002

DOCUMENT-IDENTIFIER: US 6450407 B1

** See image for Certificate of Correction **

TITLE: Chip card rebate system

Abstract Text (1):

A method and system for providing advertisement information, including advertising as well as sales promotions, on chip cards that additionally involves an electronic money rebate to the consumer, and for the distribution, accounting, and recovery of the associated electronic money rebates. Rebates are conveyed to the consumer by communication from the advertisement information provider to a customer's chip card via a multiplicity of possible channels including: a personal computer, a portable chip card reader, a point-of-sale (POS) terminal, a handheld device, a home or business telephone, a vending machine, a cellular phone, a pager, a mass transporation payment station, a television and/or television set-top box, or an automated teller machine (ATM). Rather than giving a discount at the point of sale, a rebate in the form of electronic money is stored in chip card memory. The method and system also include tracking and storing integrated relational information regarding advertisement information, products, and customer's buying habits with respect to those products for which rebates have been given. Determination of which particular advertisement information and rebates to store onto the card may be based on customer information available to the providers of the advertisement information. The chip card may or may not incorporate an electronic display for showing the advertisement information directly on the card.

Brief Summary Text (2):

This invention relates to providing advertisement information, including advertising as well as sales promotions, on chip cards (sometimes called "smart cards") that additionally involve an electronic money rebate to the consumer, and to the distribution, redemption, and processing of the associated electronic money rebate.

Brief Summary Text (7):

Persuasive appeal to the audience's emotions and feelings is an element frequently found in advertising. Examples of these emotions and feelings can include, among many others, one's sense of romance, fun, adventure, style, accomplishment, desire, humor, confidence, nostalgia, curiosity, and determination. Miller Lite's.TM. "Taste's great, less filling".TM. series of advertisements appealed to one's sense of humor and successfully persuaded consumers to purchase more Miller Lite.TM. beer. Another famous example is the U.S. Army's.TM. long running "Be all that you can be".TM. advertising campaign, which appealed to one's sense of determination and adventure to persuade more individuals to join the Army.

Brief Summary Text (8):

The other component of "advertisement information" is sales promotions. Sales promotions are typically short-term incentives designed to prompt immediate action on the part of the consumer to purchase a service or product. Examples of sales promotions include rebates, samples, contests, and discount coupons. Sales promotions generally entail a person receiving something that has some monetary value such as a coupon or free product sample. Sales promotions can also involve a person merely hoping to receive something of economic value, such as contest

winnings.

Brief Summary Text (9):
Advertising and sales promotions are frequently used together as part of a complete marketing program for a product or service because of the distinct advantages offered by each. For example, the makers of Wonder Bread.TM. might utilize a coupon sales promotion in an attempt to quickly attract customers who typically purchase other breads. At the same time, the makers of Wonder Bread.TM. might use an advertising campaign that seeks to build their "brand" by repeatedly using a persuasive slogan such as "Wonder helps build bodies 12 ways".TM., which may help create brand loyalty by appealing to the consumer's desire to become strong and healthy by eating Wonder Bread.TM..

Brief Summary Text (11):
Coupon Industry Terms (quoted from Coupons--A Complete Guide: Joint Industry Coupon Guidelines, Joint Industry Coupon Committee, Grocery Manufacturers of America, Wash. D.C., 1998.) Manufacturer's Coupons--Coupons issued by a manufacturer offering consumers a specific amount off the purchase price of one or more of the manufacturer's products. The coupons may be distributed through a variety of media--in the manufacturer's newspaper or magazine ads; in a free-standing insert, or on a product package, by mail or door-to-door delivery, etc. Store Coupons--A coupon printed by a retailer and available to shoppers in the store, either in a special flyer or at the shelf or display where the couponed product is stocked. In-ad coupons--Coupons in a particular retailer's newspaper ad or handbill that are redeemable on the specific product only at the particular store or chain. The coupons are usually issued under a special agreement between the retailer and the manufacturer of the product. Free-standing insert (FSI)--A group of manufacturers'color advertisements (each of which usually includes a coupon) printed as a separate section and inserted into a local newspaper, usually the Sunday edition. Redemption--The cashing-in of coupons when merchandise is purchased in order to obtain discounts or premiums. Retail Clearinghouse--An independent company used by a retailer to sort, count and submit coupons for payment to manufacturers or their agents on behalf of the retailer. Coupon Clearinghouse--Processes coupons from grocery and other stores and sends them to manufacturers or their agents for payment. Cross Coupon--(Also called cross-ruff coupon.) A manufacturer's coupon that is placed inside a product or printed, on the package and is redeemable on the purchase of a different product. Universal Product Code (U.P.C.)--A combination of vertical bars printed on product packages (or on coupons) that can be "read" by an electronic scanner at the checkout to identify the item, automatically look up the item's price (or the coupon's value) in a computer, and instantaneously ring-up the price (or the value) on the cash register. Family Code--The three digit number found immediately after the manufacturer ID code on a coupon U.P.C. It is used to validate a coupon automatically against a specific product or group of products at the point-of-sale. Refund or Rebate Certificate--A certificate issued by the manufacturer that offers consumers money back on the purchase price of a product. Usually after they mail some proof of purchase to the manufacturer. Misredemption--Coupons that were not redeemed properly for the correct products in accordance with the stipulations printed on the particular coupon.

Brief Summary Text (14):
In recent years, there have been a number of improvements to the coupon distribution and redemption system to address some of these problems. Some companies now specialize in more targeted distribution of coupons by direct mail. In the last several years, the Internet has become a very popular mechanism for distributing coupons and rebates to consumers. Coupons distributed from the Internet will typically take the form of either coupons printed by a consumer's personal computer (Christenson U.S. Pat. No. 5,710,886) or loaded electronically onto a smart card (Powell U.S. Pat. No. 5,806,044). Distribution may also occur via a processing center in communication with both the website from which the consumer

requested the coupon and the retailer at. which the consumer redeemed the coupon by purchasing the associated product (Kepecs U.S. Pat. No. 6,009,411).

Brief Summary Text (15):
Several companies now offer systems at the point-of-sale that provide the retailer with faster clearing of coupons. Some systems have the coupons fed into a machine which either electronically redeems the coupon and discounts the purchase price (and shreds the coupon so it cannot be reused), or the coupons are ejected from the machine if the UPC code does not match the consumer's current purchases.

Brief Summary Text (16):
Several systems have been developed which incorporate the use of chip cards (smart cards) for coupon distribution and redemption (Haddad U.S. Pat. No. 5,804,806; Powell U.S. Pat. No. 5,806,044; Valencia U.S. Pat. No. 5,380,991; Kepecs U.S. Pat. No. 6,009,411). The use of chip cards for couponing systems addresses the problems of customer convenience (no clipping is needed), more targeted distribution of coupons, misredemptions, fraud, high handling costs for the manufacturer and/or retailer, and speed of redemption at the point-of-sale.

Brief Summary Text (17):
The disadvantage of all these existing chip card couponing systems is that they utilize the conventional coupon redemption system, wherein the retailer initially pays for the cost of the discount, by reducing the purchase price that the retailer receives for the product or service. The manufacturer subsequently reimburses the retailer for the cost of the redeemed coupon. Typical delays from time of purchase to the retailer receiving reimbursement for the discount range from 1-3 weeks.

Brief Summary Text (22):
Chip cards can be used in two types of operating environments: closed systems or open systems. A closed system is managed in a contained environment where there is a single card issuer, who also acts as the sole service provider. A proprietary card is issued to customers of the service provider for exclusive use at its facilities. Because the issuer, service provider, and also at times the acquirer are a single entity, there is no need for a system operator to clear transactions with other parties. Closed systems are typically used in applications such as transit systems, colleges and universities, public telephones, theme parks, military bases, prisons, and large corporations. An open system, on the other hand, accommodates multiple issuers and allows consumers to use their cards at multiple locations and merchants. Because there are multiple issuers and acquirers, an open system involves a greater degree of complexity than a closed one. An open system requires a clearing and settlement function to move funds between issuers and acquirers; demands greater security; and necessitates a standard infrastructure among all participants.

Brief Summary Text (23):
Credit Card Industry Terms Merchant Acquiring Financial Institution--A bank or other financial institution that has a business relationship with a merchant and receives all credit card transactions from that merchant. Card Issuing Financial Institution--A bank or other financial institution which issues credit cards to the customer. Authorization--Approval of a credit card transaction for a merchant by the card-issuing bank. Authorization Code--assigned by the card issuing bank to a credit card sale to show that the transaction is authorized. Electronic Data Capture--Entering and processing the sales drafts by electronic methods. Typically, a credit card sale authorization is obtained at the time of the purchase, and then at night the sales draft is electronically captured by sending in batch the day's sales drafts from the Point of Sale (POS) terminal to be processed by the Acquirer. In online payment schemes, capture is used to denote the electronic deposit of the sales draft with the Acquiring bank. Sales draft--An instrument showing an obligation on the cardholder's part to pay money, (i.e. the sale amount), to the card issuer. This is the piece of paper that you sign when making a purchase with

your credit card. Interchange (or transaction) Fee--A fee a credit institution charges in order to process a credit card transaction involving a cardholder's account. This fee is regulated by an institution such as MasterCard and Visa, and is a percentage of the total transaction amount. The exact definition of this will change depending on which institution is involved. (See table 1 below). Discount (or disbursement) fee--A percentage of the retail sale paid as a fee to a credit institution for processing the credit card transaction. The exact definition of this will change depending on which institution is involved. (See table 1 below).

Brief Summary Text (25):
Stored value is a relatively recent innovation to electronic payment systems. Stored value is an "intangible electronic obligation"(21.sup.st Century Money Banking and Commerce, Vartanian, Thomas, Fried, Frank, Harris, Shriver and Jacobson, Washington, D.C., 1998) stored on a computer, smart card, or other electronic storage device such as a personal digital assistant. Common examples of stored value systems are prepaid phone cards, mass transit cards, or electronic money stored on chip cards.

Brief Summary Text (28):
An electronic purse or electronic wallet is an application program for managing, and memory locations for storing, electronic money on an electronic device. Typically the device is a chip card, but may also be a personal computer or other electronic device. Electronic purse schemes function the same as other chip card payment systems except for the additional function of loading electronic money onto the cards, a function that is not present in traditional credit card schemes. Acceptor--the Merchant operating the POS terminal Acquiring Technical Operator--Collects the Purchase and Purchase Cancellation Traces stored in the POS terminals and delivers to Purse Providers. Funding Bank--Credits the Purse Provider (directly or via the Loading Operator), from the funding account, with the amount to be loaded in the chip card electronic purse. Loading Operator--Operates Load Devices for accepting the cardholder's request for loading electronic money. These may or may not be POS terminals and loading operator may or may not be a Merchant. Purse Provider--Loads electronic money into the purse and therefore controls the creation of electronic money and guarantees that electronic money. Purse Scheme Administrator--Defines operational rules for and manages the purse system, e.g. VISA for the VISA Cash system. Settlement--A process performed by the Purse Provider. Based on data from Purchase and Load transactions, payment is effected from the Purse Provider to the Acquiring Bank and, when loaded against other means of payment, from the Loading Operator to the Purse Provider.

Brief Summary Text (30):
We have discovered a method for using chip cards as a vehicle for delivering advertisement information to consumers and for electronically rebating the consumer with electronic money either for the delivery of that advertisement information or for the purchase of specific products. Preferably, our invention is used to deliver targeted advertisement information and to rebate the consumer for receiving that information and for purchasing the particular products associated with that information.

Brief Summary Text (31):
In a first aspect the invention features a method for providing advertisement information and associated rebates in connection with the use of a chip card of the type containing a memory. The method comprises downloading advertisement information onto the chip card when the card is used by the user. The advertisement information includes information identifying one or more products with which a rebate is associated. The advertisement information is stored on the chip card. During a purchase transaction when the chip card is used to purchase a product, the system determines whether a rebate is associated with the product being purchased, and if a rebate is associated with the product, a rebate in the form of electronic money is entered into the memory of the card during the purchase transaction. By

"product" we mean either a tangible item such as food or clothes, but also services rendered where no tangible item is transferred in the transaction.

Brief Summary Text (33):
Advantages of the invention can include one or more of the following. The invention provides a means for a consumer to redeem coupons at the point of purchase and yet allow the retailer to receive full price for all items being purchased. The retailer does not to have to get involved in the redemption of coupons; where previously retailers were forced to carry large accounts receivable associated with the money owed to them by coupon clearinghouses and manufacturers, they can now receive the full, non-discounted price for the transaction. Handling and processing costs normally associated with paper coupons will be significantly reduced. The invention may also motivate the consumer to make future purchases because the incentive in the form of electronic money is not `exercised` immediately at the time of purchase as in the case of a coupon discount, but rather the electronic money is designed to be used at a subsequent purchase or other transaction. The invention is superior to other forms of chip card based loyalty systems in that the consumer receives electronic money as opposed to `points`. The points can be redeemed by only one or, at most, a limited number of commercial entities; electronic money, on the other hand, will be as ubiquitous as the use of chip cards which can already be used in place of hard currency in a variety of locations. It also provides a means of automatically distributing advertising revenues to the various parties via electronic financial transaction networks.

Brief Summary Text (35):
The communication and processing network for transmitting data to and from the chip card may or may not be the same as the communication and processing network engaged in the purchase transaction. For instance, the communication network would be separate in the case where the ASP was downloaded onto the chip card off of an Internet website using a personal computer or from a cellular phone with a chip card communication port and then the consumer subsequently uses the chip card to make a purchase which used the rebate stored on the chip card at a `bricks-and-mortar` retail location. On the other hand, the communication network is integral to the credit card transaction network in the case where the ASP is downloaded to the chip card at the point-of-sale.

Brief Summary Text (36):
A particular ASP can be stored onto the chip card preferably based on customer information available either on the chip card or on the communication network. The ASP may also be loaded at the time a customer uses a chip card to purchase an item. The ASP may be served either directly from the POS terminal or in-store network or from the Affinity Operator's advertisement information server. In the case where the advertisement information server resides at the merchant location in either the POS terminal or the merchant's computer network, the ASPs would be loaded during electronic data capture, off-hours. ASP server decision rules for choosing which ASPs to load would also be loaded, if necessary, during electronic data capture. Information is stored on the customer's chip card, which allows the ASP server to determine which ASP is most appropriate for that particular customer. The types of items currently being purchased by the customer as well as the merchant type are combined with the chip card information to determine which ASP is served to the chip card.

Brief Summary Text (37):
At the time a customer uses the chip card with the particular ASP to purchase the associated item, the rebate associated with that ASP is converted from having a potential monetary value (i.e., purchases cannot yet be made with the monetary value) to real value, or electronic money, in a so-called electronic purse that can be used for purchases. In distinction to current practice, the incentive value is not deducted from the amount due from the consumer to the retailer. The retailer thus receives full price from the consumer and no longer needs to concern

themselves with either managing paper coupons or with having to wait for the refund from the various coupon clearinghouses or manufacturers. This electronic money as a result of the purchase of the item and use of the ASP can be stored in the chip card memory in a number of possible forms such as being added to a single value that represents stored cash value or modifying a flag associated with the ASP that indicates that the monetary incentive value is available for use in purchases. There may also be a means for allowing for the multiple use of the rebate associated with the ASP so that the rebate is available for more than one purchase. For instance, the multiple rebate capability may take the form of Loyalty Rebating in which the rebate value is increased as more purchases of that item are made by the consumer.

Brief Summary Text (38):
Alternatively, the rebate may not be stored on the chip card, but rather would be stored either at the point-of-sale or on the communication and processing network. At the time of purchase, the ASPs stored on the chip card would be compared with rebates available either at the point-of-sale or on the communication and processing network and the appropriate incentive rebate values determined and loaded onto the chip card electronic purse.

Brief Summary Text (39):
Additionally, electronic money may be put into the electronic purse as a result of loading the ASP onto the chip card, without any concomitant purchase of the product associated with that ASP. The system could be so configured such that the amount of electronic money loaded with each new ASP would be a function of how much information the consumer was willing to share to provide better targeting of the ASP provided; the more user-characterizing information allowed by the consumer for targeting, the more they would be rebated per ASP downloaded.

Brief Summary Text (42):
The step of varying the value of the rebate may be associated with a product based on purchases made by the user.

Brief Summary Text (43):
The value of the rebate may be varied based on the number of purchases the user has made.

Brief Summary Text (44):
The value of the rebate may be increased with increasing number of purchases of the product associated with the rebate.

Brief Summary Text (45):
The value of the rebate may be varied based on the duration over which the user has made purchases.

Brief Summary Text (46):
The value of the rebate may be increased with increasing duration over which the user has made purchases of the product associated with the rebate.

Brief Summary Text (48):
The display may list products that the card holder desires to purchase.

Brief Summary Text (53):
The value of the rebate may be downloaded onto the chip card with the download of the advertisement information, and the step of entering the rebate into the memory of the card as electronic money may comprise loading the amount of the rebate into the electronic purse of the chip card.

Brief Summary Text (54):
The value of the rebate may be stored on a computer network or a point of sale

terminal until the time of a purchase at which a rebate is made to the user.

Brief Summary Text (59):
Product returns/refunds designed to fraudulently keep the rebate already stored on the chip card may be prevented by requiring that product refunds be processed using the same chip card, and by having the electronic money rebate that is associated with the returned product deducted from electronic money stored on the chip card.

Brief Summary Text (65):
Payment of the rebate may be made dependent on timing and/or frequency of cardholder purchases or visits to a particular store.

Brief Summary Text (70):
The value of the rebate may be greater for frequent, loyal shoppers than for shoppers that make one-time purchases only for a short time period.

Brief Summary Text (71):
The user may be paid a manufacturer's rebate and a retailer's rebate for the same purchase.

Brief Summary Text (75):
When the purchase is made over the Internet, the customer would have a chip card reader connected to their personal computer. Since the bandwidth of the communication channel is sufficient to support real time download of at least text, sound, and graphics images (and short video files in the case of data rates rates higher than 100 kbps), the advertising server may be located on the Affinity Operator's network. Information characterizing the customer can be entered and stored either on the customer's personal computer or on the Affinity Operator's network. The invention may be used as part of a method for providing advertisement information and associated electronic money rebates in connection with the use of a chip card of the type containing a memory, the method comprising: downloading advertisement information onto the chip card when the card is used by the user; storing the advertisement information on the chip card; displaying the advertisement information either on a display built into the card or on a display on a device with which the card communicates; determining, when a particular product is purchased, whether there is an incentive associated with that particular product; and if the result of said determination is positive, then electronic money is stored non-volatilely in the chip card's memory.

Brief Summary Text (79):
The downloading of the advertisement information onto the chip card may occur in connection with a transaction. The transaction may be a purchase made using the chip card to pay for the purchase. The purchase may be made at a POS terminal. The purchase may be of communication services using a card adapted to purchase the communication services. The communication services may comprise telephone service, and the chip card may be a telephone calling card. The purchase may be usage of a toll road, and the purchase may be made by wireless communication with the chip card as a vehicle containing the card passes a location on the toll road. Information identifying the downloaded advertisement information may be downloaded onto the chip card. At least some of the information characterizing the user may be stored in the memory of the chip card, or at least some of the information characterizing the user may be stored on a computer network to which the chip card can be connected. Stored on the chip card may be information representative of the number of times that the advertisement information has been displayed. Stored on the chip card may be information representative of whether the chip card has been used to purchase a product or service related to the advertisement information downloaded onto the chip card. Stored on the chip card may be information representative of whether the chip card has been used to purchase a product or service related to the advertisement information downloaded onto the chip card, and information representative of the number of times that the advertisement

information has been displayed prior to the time of the purchase. The information can be stored on a computer network to which the chip card can be connected, or in a memory on the chip card as part of an affinity record.

Brief Summary Text (80):
The method may include downloading to the chip card information identifying the downloaded advertisement information; relating in a database the information identifying the downloaded advertisement information, the information representative of the number of times that the advertisement information has been displayed, and the information representative of whether the chip card has been used to purchase a product or service related to the advertisement information downloaded onto the chip card. This information may be related to information representative of the number of times that the advertisement information has been displayed prior to the time of the purchase. The information may be stored on the chip card, and may be uploaded from the chip card to the database, which resides on a computer network. The uploading of the information from the chip card may occur at the time the chip card is used in a transaction, or during the settlement and clearing operation performed following a transaction.

Brief Summary Text (89):
An advertising testing campaign may be conducted in which a plurality of advertisement information for the same product or service are distributed, loaded onto chip cards, and user profiles and information on number of times of display and on purchase data may be uploaded from the chip cards for theadvertisement information, and the information may be processed to determine which of the advertisement information should be used, or which of the advertisement information should be used with particular user profiles.

Brief Summary Text (97):
The information stored on the chip card may contain information identifying the specific product manufacturer or vendor, a product identification, and an indicator of how many displays of the advertisement information were performed prior to the customer's first purchase of the item or items advertised.

Brief Summary Text (105):
The transaction may be a purchase-less transaction such as an ATM transaction.

Detailed Description Text (2):
Referring to FIGS. 1 and 2, a system stores an advertisement and/or sales promotion (ASP) with associated electronic money rebate 106 on a chip card 123 via two possible modalities: (1) when a consumer 105 visits a merchant 113 at either an on-line or retail store and purchases an item using the chip card; or (2) via alternative communication channels 163 such as, e.g., a personal computer connected to the Internet, a portable chip card reader, a point-of-sale (POS) terminal, a handheld device, a home or business telephone, a vending machine, a cellular phone, a pager, a mass transportation payment station, a television and/or television set-top box, or an automated teller machine (ATM).

Detailed Description Text (5):
At the time of a transaction, e.g., a purchase, the Merchant 113 calculates the amount of purchase and asks the consumer 105 for payment. The Merchant 113 inserts the chip card 114 into the POS terminal 116 and communication is established between the chip card 114 and the terminal 116 via serial data channel 115. Referring to FIGS. 4-6, the serial communication channel is accomplished by electrical contacts 133 and communication signals 141 of the chip card 114. The amount of the sale is either hand-entered or transmitted by the cash register 148.

Detailed Description Text (7):
The USER PROFILE data field 142 (information characterizing the card user) is preferably 128 bits long and is composed of preferably 4 bit fields, each

representing a value or numeric score for the user relative to a specific demographic, psychographic, or other measure. In the case of a 128 bit word with 4 bit fields, the USER PROFILE data field 142 provides a 30-dimensional descriptor matrix of the factors affecting a customer's buying habits. Based on traditional marketing techniques such as customer interviews and questionnaires and focus groups, a user profile or set of profiles will be developed that are believed to be the optimum group to which the chip card ASP should be targeted. Additionally, the advertiser may wish to test market to other user profiles that may have produced equivocal results by traditional marketing, but for which the advertiser wishes to gather actual data using the chip card evaluated based on models generated from the data in the Affinity Network database. Based on the above-mentioned methods, the target user profile or profiles are chosen by the Advertiser 100 in conjunction with the Affinity Operator 101. Additionally, target profiles may include such non-customer-related factors as the nature of the items currently being purchased by the customer; for instance, if the customer were purchasing a loaf of bread, the ASP downloaded might be one for a related item like butter, or it might be for a competitor's bread.

Detailed Description Text (8):
In the case of credit/debit card transaction, Merchant 113 transmits the credit card data and sales amount with a request for authorization of the sale to their Acquirer 111 or Network Operator 109, if there is one, typically by phone line but sometimes by Internet. The Network Operator 109, if present, performs settlement and clearing functions, enforces rules and regulations, handles security issues, and maintains the float pool. Point of sale units 116 are usually set to request authorization at the time of sale, and then actually capture the sales draft at a later time. The Acquirer 111 that processes the transaction also routes the authorization request to the Issuer 103. The credit card number identifies type of card, issuing financial institution, and the cardholder's account (user identification information). If the cardholder has enough credit in their account to cover the sale, the Issuer 103 authorizes the transaction and generates an authorization code. This code is sent back to the Acquirer 111. The Issuer 103 puts a hold on the cardholder's account for the amount of the sale. The Acquirer 111 processes the transaction and then sends the approval or denial code to the merchant's point of sale unit 116.

Detailed Description Text (9):
During the time that these preceding transactions are taking place to obtain authorization, the POS terminal 116 downloads the chosen ASP to the chip card. A new Affinity record is created in the Affinity data block on the chip card containing the VENDOR ID 143, PRODUCT ID 144, PRODUCT TYPE 145, ASP VERSION 151, PRODUCT COST 146, and LOADS UNTIL PURCHASE 147 fields associated with that particular ASP. There may be more than one version of the ASP for a particular product for reasons of targeting the message to particular customer groups, therefore a data field is provided, ASP VERSION 151, which indicates which ASP has been downloaded. Additionally, the chip card's Affinity Records are uploaded to the POS terminal 116 and compared to items currently being purchased. If a match is found between the PRODUCT ID 144 and any of the purchased product's UPCs, then the following algorithm is performed: If match then If (PURCHASED ==FALSE) then *if it hasn't yet been purchased* {if LOADS_UNTIL_FIRST_PURCHASE <7 then LOADS_UNTIL_FIRST_PURCHASE ++; PURCHASED ==TRUE; } else *no match to ASP* {if LOADS_UNTIL_FIRST_PURCHASE <7 then LOADS_UNTIL_FIRST_PURCHASE ++; }

Detailed Description Text (10):
The data value LOADS_UNTIL FIRST PURCHASE is the number of downloads of that particular ASP that were needed before a purchase was first made by the card holder. The Affinity Record for the particular ASP that was loaded to the card along with the credit card number is saved in POS memory for upload to the Affinity Operator 101 or Acquirer 111 during subsequent electronic data capture.

Detailed Description Text (12):
For all ASPs with rebates, the rebate amount is determined. Preferably, the rebate amount is determined by the POS terminal 116, though determination may occur within the chip card or remotely for example on the Internet. The determination is preferably performed in the following manner: 1) determine if any rebates are still available by reading the REBATES AVAILABLE field 159 of the INCENTIVE RECORD 163; 2) if rebates are still available then determine value of rebate by reading BASE REBATE field 158 of the INCENTIVE RECORD 163; 3) determine if the LOYALTY REBATE FLAG 160 is set; 4) if the LOYALTY REBATE FLAG 160 is set then determine the Loyalty rebate amount by reading LOYALTY REBATE INCREASE (LRI) 161 and NUMBER OF PURCHASES MADE 162. The rebate is calculated based on the following formula:

Detailed Description Text (13):
In the formula, the smaller of the two values MAX.sub.13 REBATE and NUMBER_OF_PURCHASES_MADE is chosen for the calculation so as to provide a means of saturating the function when a maximum desired rebate value has been achieved. Loyalty Rebating causes the rebates to increase as a consumer purchases more of a particular product. The Loyalty Rebating can be optimized to incentivize a consumer around different parameters. For instance, if the dates of purchase are stored along with the NUMBER_OF_PURCHASES_MADE 162, then the consumer can be rewarded for either frequency of purchases (how many within a certain period), length of time they have been purchasing the product (loyalty), or for how regular a customer they have been (regularity). Loyalty Rebating may also use a non-linear function for determining the rebate value, for instance, the consumer might be required to purchase more than one item before a rebate was received, in which case a flag indicating non-rebated purchases would be used to implement that functionality. The non-linear function might also take the form of a polynomial equation, logarithmic, or other mathematical or logical expression.

Detailed Description Text (14):
Alternatively, information on rebates may not be stored on the chip card, but rather may be stored either at the point-of-sale or on the communication and processing network. At the time of purchase, the ASPs stored on the chip card would be compared with rebate information available either at the POS or on the communication and processing network, and the appropriate rebate amounts determined and loaded onto the chip card electronic purse.

Detailed Description Text (16):
Once a determination of the actual rebate value has been made, the rebate needs to be added to the stored value already in the chip card's memory. Preferably, the rebate will be added to chip card memory locations that provide what is termed electronic purse functionality. The rebate value may also remain distinct from the chip card's electronic purse function by providing each ASP with a rebate field and treating the ASPs, in effect, as a distributed electronic purse. Preferably, the rebate value storage scheme used will be in compliance with industry standards such as the CEPS and EMV standards, along with purse scheme administrator standards such as VISA's VCEPS standard and the Mondex standard. Alternatively, the rebate may not be added to chip card memory until the consumer 105 connects the chip card into a secondary device such as a chip card reader connected to a personal computer, a cell phone, or a portable chip card reader that may even be at a different location such as a home. At that point, the chip card would, for instance, be inserted into a chip card reader connected to a personal computer and the electronic money loaded onto the chip card at that time. By including an additional flag indicating whether a rebate or rebates was due to the consumer in the INCENTIVE_RECORD 163, and then having the secondary device determine the state of this flag, this alternative scheme could be accomplished.

Detailed Description Text (17):
The specific implementation of rebate value storage will depend on the type of electronic purse scheme used by the Purse Provider. In transactions which provide

authorization from the issuer, typified by credit and debit card transactions, the electronic money would preferably be downloaded to the chip card at the time of authorization when the card is used for purchase. This is a stored value load transaction where the funding bank would preferably also be the Affinity Network Operator. This type of system could be used when the chip card used had credit card as well as electronic purse functionality. In the case of the credit/debit type of transaction, the rebate stored value is not transferred to the chip card 114 until the credit authorization has been completed.

Detailed Description Text (19):
In an unlinked purse system, stored value transactions are not associated with any account information, and the individual transactions are accumulated and transmitted in a set of total amounts in a process called aggregation. In this case, the rebate stored value transactions would be aggregated separately from the purchase stored value transactions, allowing for proper settlement by the participating financial institutions.

Detailed Description Text (21):
Additionally, stored value may be put into the electronic purse as a result of loading the ASP onto the chip card, without any concomitant purchase of the product associated with that ASP. The system could be so configured such that the rebate amount for each new ASP would be a function of how much information the consumer was willing to share to provide better targeting of the ASP provided; the more information allowed by the consumer for targeting, the more they would be rebated per ASP downloaded.

Detailed Description Text (23):
Stored value settlement functions slightly differently from credit/debit settlement. The Acquirer 111 informs the Purse Provider of all stored value transactions using that particular purse system. The electronic value is transferred from the Acquirer 111 to the Purse Provider who, in exchange, reimburses the Acquirer along with any interchange or loading fees. The payment may be made via financial electronic data interchange (EDI), via money transfer using an Automated Clearing House Association, or by conventional paper check. The Acquirer 111 credits the Merchant 113 for the purchase transactions and rebate stored value.

Detailed Description Text (25):
As part of the data transfer protocol between the Acquirer 111 and Affinity Operator 101, the Acquirer identifies itself by its assigned ID number prior to transferring data to the Affinity Operator. The Affinity Operator 101 uses this ID along with the Affinity Record/card number pairs to create records in its Affinity Database 155. The Affinity Database records contain fields for at least the following information: Date of ASP download; card type; issuer ID; acquirer ID; encrypted cardholder ID (one form of user identification information); Product vendor ID; Product type; Product cost; Loads until first purchase; ASP version; and User profile. Also included in the data transfer protocol is an acknowledgement of receipt message from the Affinity Operator 101 to the Acquirer 111 that indicates the number of records received. Based on the acknowledged number of records received, the Affinity Operator 101 makes payment to the Acquirer 111 on a preferably per record basis of an amount mutually agreed to by both parties. The payment may be made at the time of data transfer via financial electronic data interchange (EDI), via money transfer using the National Automated Clearing House Association, or by conventional paper check at a later time. There will be multiple Acquirers participating in the download of ASPs 106 onto chip cards 123; the total number of downloads for each ASP across all Acquirers is tallied and the Affinity Operator 101 charges the Advertiser 100 based on that total.

Detailed Description Paragraph Equation (1):
Actual REBATE=(BASE_REBATE*(1+(min(MAX_REBATE,NUMBER_OF_PURCHASES_MADE)*LRI))127

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European Committee for Banking Standards, Technical Committee Draft: The Interoperable Financial Sector Electronic Purse, Part 2: Security Architecture [TCD110-2] (Jun. 19, 1998).

Other Reference Publication (29):
"Ferroelectric LCDs," published Jun. 1991; HTML: Aug. 30, 1995; JTEC/WTEC Hyper-Librarian, file:///C/My Documents/Gary/smart card/ferro_1.htm, printed from Internet Sep. 14, 1997.

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Other Reference Publication (39):
Krummert, "Smart Card, Smart Choice: How Restaurants are Profiting from Credit Cards," Restaurant Hospitality (Nov. 1, 1999).

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Kutler, "`UltiCard` Developers Hope to Make Smart Card Debate Obsolete," The American Banker (Jul. 23, 1986).

Other Reference Publication (53):
"Smart Card Set-Up Introduces Loyalty Program," Card Technology Daily News, (http://cardtech.faulknergray.com/news.htm), download date: Apr. 10, 2000.

Other Reference Publication (54):
"Smart Cards: Buying Via Cable Lines," American Banker (Mar. 1, 2000).

CLAIMS:

1. A method for providing advertisement information and associated rebates in connection with the use of a chip card containing a memory, the method comprising: downloading advertisement information onto the chip card when the card is used by the user; storing the advertisement information on the chip card, the advertisement information including information identifying one or more products with which a rebate is associated; during a purchase transaction when the chip card is used to purchase a product, determining whether a rebate is associated with the product

being purchased; and if a rebate is associated with the product, entering a rebate in the form of electronic money into the memory of the card.

5. The method of claim 1, further comprising the step of varying the value of the rebate associated with a product based on purchases made by the user.

6. The method of claim 5, wherein the value of the rebate is varied based on the number of purchases the user has made.

7. The method of claim 6, wherein the value of the rebate is increased with increasing number of purchases of the product associated with the rebate.

8. The method of claim 5, wherein the value of the rebate is varied based on the duration over which the user has made purchases.

9. The method of claim 8 wherein the value of the rebate is increased with increasing duration over which the user has made purchases of the product associated with the rebate.

11. The method of claim 10 wherein the display lists products that the card holder desires to purchase.

16. The method of claim 1, wherein the value of the rebate is downloaded onto the chip card with the download of the advertisement information, and the step of entering the rebate into the memory of the card as electronic money comprises loading the amount of the rebate into the electronic purse of the chip card.

17. The method of claim 1, wherein the value of the rebate is stored on a computer network or a point of sale terminal until the time of a purchase at which a rebate is made to the user.

27. The method of claim 1 further comprising making payment of the rebate dependent on timing and/or frequency of cardholder purchases or visits to a particular store.

32. The method of claim 1 wherein the value of the rebate is greater for frequent, loyal shoppers than for shoppers that make one-time purchases only for a short time period.

33. The method of claim 1 further comprising paying the user a manufacturer's rebate and a retailer's rebate for the same purchase.

38. The method of claim 37 wherein the display lists products that the card holder desires to purchase.

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